

Notice of Allowability

Application No.

10/069,538

Examiner

Samson B. Lemma

Applicant(s)

SAKO ET AL.

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed after non-final on 06/28/2007.
2. ☒ The allowed claim(s) is/are 1-3, 5, 7, 9-11, 13, 15, 17, 18, 20, 21, 24, 25, 28-30, 34, 36-38, 40-42, 46 and 51-54.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

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DETAILED ACTION

1. This is in reply to an amendment after a non-final rejection filed **on June 28, 2007**. Claims **4, 6, 12, 14, 19, 22-23, 26-27, 31-33, 35, 39, 43-45, 47-50 and 55-86** have previously been canceled. And claims **8 and 16** are now canceled. Thus claims **1-3, 5, 7, 9-11, 13, 15, 17-18, 20-21, 24-25, 28-30, 34, 36-38, 40-42, 46 and 51-54** are pending/examined.
2. In the previous office action Examiner objected dependent claims 2,8,10,16,18,20-21,24,28,30,36,38 and 41-42 as being dependent upon a rejected base claim, and indicated that they would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

3. Claims 1-3, 5, 7, 9-11, 13, 15, 17, 18, 20, 21, 24, 25, 28-30, 34, 36-38, 40-42, 46 and 51-54 are allowed.
4. The following is an examiner's statement of reasons for allowance:
5. Independent claims 1, 9, 17, 25, 40 and 51 are allowed for the following reasons.

The combination of, Miwa, Kuroda and Shoji, the reference/s on the record, discloses each and every limitations of the previous independent claims 1, 9, 17, 25, 40 and 51, before the claims was amended, as shown below.

For instance,

Referring to the previous independent claims 1, 9, 17, 25, 40 and 51,

Miwa, the primary reference on the record, discloses a recording method for a recording medium,[Abstract, "RAM" or "ROM"]comprising the steps of:

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Recording main data onto a recording medium on which an identification part indicating a type said recording medium provided, so that said main data are readable as optical changes;[paragraph 0011] (management information is met main data and this management information is embedded/recorded on medium of a type such as RAM(rewritable type) or R(write-once type) meets the limitation of an identification part indicating a type said recording medium as it is recited on paragraph 0011)and

Embedding sub data at least into a part of said main data based [paragraph 0013, "additional information is met to be sub data]

Miwa does not explicitly disclose embedding subdata based on a format corresponding to said type of said recording medium and recording said sub data along with said main data.

However, in the same field of endeavor Kuroda, discloses embedding sub data based on a format corresponding to said type of said recording medium and recording said sub data along with said main data.[paragraph 0005, paragraph 0021-0022] (the type of said recording medium is interpreted as it is recited on the dependent claim 3)

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to combine the feature of **embedding data based on a format corresponding to said type of said recording medium** as per teachings of **Kuroda** in to the method of **embedding data** as taught by **Miwa**, in order to provide a secure method of prohibiting reproduction of digital information illegally. [see, Kuroda, paragraph 0001, the last 2 lines]

The combination of Miwa and Kuroda does not explicitly disclose recording the modulation processed data on to the recording medium and wherein the

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margin bits are used for adjustment of deviation in a direct current balance of the recorded modulation processed main data.

However, in the same field of endeavor, **Shoji** discloses the following on column 30, lines 17-32, which meets the limitation recited as "recording the modulation processed data on to the recording medium."

"When an optical disc 101 is loaded, the optical head moves to writing test zone 202 for determining the best power level. Switch 121 is conductive through contacts 122 and 124 at this time. The power level setting circuit 119 first sets the default peak and bias power levels to the laser drive circuit 109. The output signal from unique pattern generator 127a of the recording data generator 127 is then modulated by the modulation circuit 126, and passed through switch 121 to the pulse generator 111 for conversion to a pulse signal. This pulse signal is then passed through delay circuit 138 to the pulse moving circuit 110 from which a signal in which the leading and trailing pulse edges are shifted is output. **Signal patterns output from the modulation circuit 126 are shown in FIG. 20. These signal patterns can be prestored to the optical disc or in the disc recorder.**" [See **Shoji**, Column 30, lines 17-32]

Furthermore, Shoji discloses the following, "fig. 16 is a plan view of yet another optical disc 1601. With this disc format user data is recorded to data area 1602. Information indicative of the method used to adjust the first pulse and last pulse according to the input data signal is recorded to area 1603 at the inside circumference area of the disc using a sequence of pits and lands (marks and spaces). Recording area 1604 at the inside circumference of the disc is used during disc production to record either optimized or typical position information for the first or last mark edge position using a sequence of pits and lands (marks and spaces)." [Column 30, lines 17-32]

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Furthermore, Shoji discloses the following, "If information specific to the optical disc 1201, such as the disc manufacturer, product number, production date and location, disc format, and recording film type, is stored to area 1203 of the optical disc 1201 shown in FIG. 12 in addition to the adjustment method information, this disc-specific information and the temporary power level information (such as peak power, bias power, margin constant, asymmetry information) used for adjusting the leading and trailing mark edge positions can be stored to memory 130 of the disc recorder." [Column 30, lines 17-32].

Therefore, the above fact, meet the limitation, recited as "wherein the margin bits are used for adjustment of deviation in a direct current balance of the recorded modulation processed main data." The above limitation is interpreted as it is disclosed on the following applicant's specification/publication.

("Another role of the margin bits is adjustment of deviation in the DC (direct current) balance. Since the main data is recorded by edge recording as described above, the position of the data bit "1" may correspond to the edge, which is the boundary between a pit and a land. Therefore, any of the recording attributes of pits and lands may be arranged before or after the data bit "1". However, in consideration of the DC balance of the recording signal, it is preferred that the probabilities of appearance of pits and lands are equal." [See applicant's Publication on Paragraph 0056] "The 14-bit data symbol, too, is selected in consideration of the DC balance of the recording signal, but it is insufficient and the DC balance is adjusted by margin bits. The DSV (digital sum value) before margin bits is found and the margin bits are selected from the above-described four types so that the DSV becomes zero as much as possible." [See applicant's Publication on Paragraph 0057] "The main data is recorded as changes and no

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changes of the recording attributes, as described above. For example, in the case of a ROM-type disc, the main data is recorded as the edges of pits and no information is recorded on the pits and lands themselves. In this embodiment, sub data is recorded and embedded by causing the sub data to correspond to the recording attributes of the pits and lands themselves." [And See applicant's Publication on Paragraph 0058])

- **However all independent claims 1, 9, 17, 25, 40 and 51 have now been amended** to include the limitations of allowable dependent claims 8 and 16. Accordingly, all claims (1-3, 5, 7, 9-11, 13, 15, 17-18, 20-21, 24-25, 28- 30, 34, 36-38, 40-42, 46,, and 51-54) are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (See PTO-Form 892).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samson B Lemma whose telephone number is 571-272-3806. The examiner can normally be reached on Monday-Friday (8:00 am---4: 30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BARRON JR GILBERTO can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

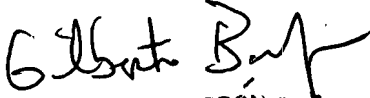
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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07/20/2007


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